

REMARKS

Claims 1-4 and 6-21 are pending in the application with claims 1, 9, 10, and 16 being the independent claims. Claims 1, 6, and 9 are amended. Claim 5 is canceled without prejudice to or disclaimer of the subject matter therein. Claims 16-21 are new. These new claims add no new matter and are supported by the description, drawings, and originally filed claims.

Applicants acknowledge the indication that claims 10-15 are allowed.

Rejections under 35 U.S.C. § 102

The Office Action rejected claims 1-4, 7, and 8 as being anticipated by JP 8-303295 to Kamiya. By this Reply, Applicants have combined the subject matter of claim 5 into claim 1. Therefore, the subject matter of claim 1 is not anticipated by Kamiya. Claims 2-4, 7, and 8 each depend directly or indirectly from claim 1. Accordingly, none of claims 2-4, 7, and 8 is anticipated by Kamiya.

Rejections under 35 U.S.C. § 103

The Office Action rejected claim 5 as being unpatentable over Kamiya in view of U.S. Patent No. 5,131,356 to Sick et al. (Sick). The Office Action rejected claim 6 as being unpatentable over Kamiya in view of U.S. Patent No. 5,357,921 to Kato et al.

Applicants have amended base claim 1 to include the subject matter of claim 5 and have canceled claim 5. Additionally, Applicants have amended claim 6 to depend from claim 1.

Kamiya discloses a cylinder liner (11) pressed into a cylinder barrel (4) in the bore (3) of a cylinder block body (2). See Kamiya, translated Abstract. A water jacket (6) is formed of a cylinder liner (11) and a wall of the cylinder head body (2). See Kamiya, Fig. 2. In addition, the water jacket (6) may be formed between two adjacent cylinder liners (11).

See id. With this Reply, Applicants are submitting a supplemental Information Disclosure Statement with a machine translation of Kamiya.

Sick discloses a linerless cylinder or multi-cylinder block having a sliding surface constituted of a fibrous body. See Sick, Abstract.

The combination of Kamiya and Sick does not render amended claim 1 unpatentable because the combination fails to establish a *prima facie* case of obviousness. To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference(s) must teach or suggest all of the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488 (Fed. Cir. 1991). See MPEP § 2143.

The combination of Kamiya and Sick does not render amended claim 1 unpatentable because the combination fails to provide a suggestion or motivation to combine reference teachings and fails to show a reasonable expectation of success.

First, the combination fails to show a reasonable expectation of successfully modifying Kamiya to employ a linerless cylinder bore, while still meeting the limitations recited in amended claim 1. In Kamiya, with reference to Fig. 2, a first bore liner (11) forms one wall of the water jacket (6) while a second bore liner (11) forms the other wall of the water jacket (6). The Examiner labeled a central portion of the water jacket (6) as the "intermediate portion." Accordingly, in Kamiya, two liners having concave surfaces are placed together to form the intermediate portion. If, as suggested in the Office Action, the two liners were replaced with material to form a linerless bore, there would be no material to form a water jacket having an intermediate portion, as recited in claim 1. Kamiya does not

disclose any method or system of creating the water jacket without the liner. The liner appears to be critical to the formation of the water jacket. Thus, Kamiya does not show a reasonable expectation of successfully forming the same water jacket with a linerless bore.

Furthermore, Sick fails to even mention a water or cooling jacket. Accordingly, there is no teaching in Sick that would show a reasonable expectation of successfully forming the claimed cylinder block when combining the cylinder block of Sick with the coolant jacket in Kamiya. Because replacing the liners of Kamiya would remove the very features that the Office Action relies upon for the rejection, amended claim 1 is not unpatentable.

Additionally, as stated above, the reasonable expectation of success must be found in the prior art, not based on the Applicants' disclosure. *In re Vaeck*, 947 F.2d 488 (Fed. Cir. 1991). See MPEP § 2143. Applicants submit that if one skilled in the art were to review the teachings of Kamiya and Sick, he would still not have a reasonable expectation that the water jacket of Kamiya, having the intermediate portion identified in the Office Action, would be successfully formed in the absence of the liners. Accordingly, Applicants submit that claim 1 is not unpatentable in view of the teachings of Kamiya and Sick. Applicants respectfully request that the Examiner reconsider and allow amended claim 1.

Second, there is no suggestion or motivation to combine Kamiya and Sick to arrive at the subject matter recited in claim 1. As stated above, the suggestion to make the claimed combination must be found in the prior art, not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488 (Fed. Cir. 1991). See MPEP § 2143. Here, there is no suggestion or motivation to combine the teachings of Kamiya and Sick that is not based upon Applicants' disclosure. Kamiya does not provide any suggestion or motivation to replace its liners with a linerless cylinder bore at least because it is the liners themselves that form the water jacket. To remove the liners of Kamiya would be to remove the water jacket. Sick does not provide any suggestion or motivation to form a linerless cylinder bore with a water

jacket, as recited in claim 1, at least because Sick discloses only a linerless cylinder, and does not even mention a coolant jacket. Instead, any suggestion or motivation appears to be based entirely upon Applicants' own disclosure. Using an applicants' disclosure as a blueprint to reconstruct the claimed invention from isolated pieces of the prior art references contravenes the statutory mandate of § 103, which requires determining obviousness at the time the invention was made. See *Grain Processing Corp. v. American Maize-Prods. Co.*, 840 F.2d 902, 907, 5 U.S.P.Q.2d 1788, 1792 (Fed. Cir. 1988). Because the combination of Kamiya and Sick do not provide any suggestion or motivation to combine their respective teachings, amended claim 1 is patentably distinguishable from those references.

Applicants' respectfully request that the Examiner allow claim 1.

Claims 2-4 and 6-8 depend from and add additional features to independent claim 1. Accordingly, these claims are allowable for at least the reasons discussed above. Applicants respectfully request that the Examiner withdraw the rejections and allow these claims.

Allowable Subject Matter

Applicants acknowledge the indication that claim 9 would be allowable if rewritten in independent form to include the subject matter of the base claim. By this Reply, Applicants have combined the subject matter of the base claim into claim 9. Accordingly, claim 9 is in condition for allowance. Applicants respectfully request that the Examiner allow this claim.

New Claims

Claims 16-21 are new claims. Claim 16 includes the features of original claim 1, with an additional feature that the first, second, and third widths are defined by surfaces formed integral with the cylinder block. These features are not disclosed in any of the references cited in the Office Action. Accordingly, Applicants respectfully request that the Examiner consider and allow claim 16.

Claims 17-21 depend from and add additional features to independent claim 16.

Applicants respectfully request that the Examiner withdraw the rejections and allow these claims.

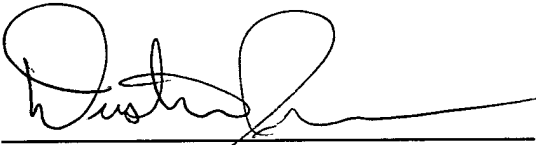
Conclusion

Claims 1-4 and 6-21 are neither anticipated nor obvious in view of any of the references cited in the Office Action. Accordingly, Applicants respectfully request reconsideration and timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our Deposit Account No. 06-0916.

Respectfully submitted,

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Attachment: Information Disclosure Statement